REPORT OF MINORITY NEW LICENSEES: TRENDS AND ISSUES

Introduction

The presence of both men and minorities in the profession of nursing has been of interest since at least the first century, when care of the sick in western Europe was assigned to a community of monks known as the brothers of St. Anthony (Conklin, 2005). Documentation on minority nurses is not as clear-cut but does exist. Much has been written on Mary Seacole, the minority equivalent of Florence Nightingale, who paid her own way to Turkey in order to provide nursing care to British soldiers serving in the Crimean War (Anionwu, 2006). Today's interest in the presence of males and minorities in the profession centers around their diminishing numbers. According to Randolph Rasch, the program director of the family nurse practitioner program at Vanderbilt University School of Nursing and the first African-American male to receive a PhD in nursing, Caucasian women are overrepresented in nursing in comparison to the general population (Hilton, 2005). Rasch stated that while approximately 75% of the U.S. population is Caucasian, in the registered nurse population, Caucasians make up 87%. He further noted that the only minority group which has parity in nursing is Asians, which make up 3.6% of the general population and 3.7% in the registered nurse population. Knowing the underrepresentation of minorities in nursing on a national scale sets the stage for an analysis of representation of minority groups in Alabama's nursing population.

Literature Review

The need to diversify the nursing workforce so that it is representative of the society it serves has been identified for several years (Buerhaus, Donelan, Ulrich, Norman, and Dittus, 2006). In national terms, the National Sample Survey of Registered Nurses, conducted by the Department of Health and Human Services in 2004, estimated 81.8% of the Registered Nurse (RN) population to be white non-Hispanic, leaving 10.6% in one of several identified racial and ethnic minority groups. Of the remaining respondents, 7.5% of RNs chose not to specify their racial/ethnic background. The racial/ethnic backgrounds of the nurses who indicated such on the 2004 survey are designated in Table 1, and the breakdown of the American population according to racial/ethnic background may be viewed in Table 2. In comparison, Table 3 shows the numbers of RNs employed in the profession from 1984 through 2000 according to gender and race/ethnicity. Once a national view of the distribution of nurses according to race and ethnicity is provided, it may be compared with the ethnicity of Alabama's nursing population, as shown in Table 4.

Table 1
Registered Nurses by Racial/Ethnic Background (Dept. of Health and Human Services, March 2004)

Racial/Ethnic Background	Percentage Derived from Nurses Sampled	Number Derived from Nurses Sampled
White, non-Hispanic	88.4%	2,380,639
Black/African American	4.6%	122,495
Asian/Pacific Islander, non-Hispanic	3.3	89,976
Hispanic	1.8	48,009
American Indian/Alaskan Native	0.4	9,453
Two or more races, non-Hispanic	1.5	40,008

Table 2
U.S. Population by Sex, Race and Ethnic Origin 2000-2004 (U.S. Census Bureau, 2005)

Racial/Ethnic Background	Percentage of U.S. Population
White, non-Hispanic	67.9%
Black/African American	12.2%
Asian/Pacific Islander, non-Hispanic	4.1%
Hispanic	13.7%
American Indian/Alaskan Native	0.7%
Two or more races, non-Hispanic	1.3%.

Table 3
Registered Nurses: Gender and Race/Ethnicity (U.S. Dept. of Health and Human Services, 2006)

REGISTERED NURSES EMPLOYED IN NURSING BY GENDER AND RACE/ETHNICITY, SELECTED YEARS: 1984-2000										
Gender, Race/ Ethnicity	Nov1984		March1988		March1992		March1996		March2000	
	Number	%	Number	%	Number	%	Number	%	Number	%
Total Gender	1,485,725	100	1,627,035	100	1,853,024	100	2,115,815	100	2,201,813	100.0
Male	49,658	3.3	58,242	3.6	79,557	4.3	113,683	5.4	129,118	5.9
Female	1,436,067	96.7	1,566,952	96.3	1,772,395	95.6	2,001,399	94.6	2,072,695	94.1
Not known	0	0.0	1,840	0.1	1,073	0.1	734	<0.1	0	0.0
Race/Ethnicity										
White (non-Hisp.)	1,329,118	89.5	1,479,093	90.9	1,655,704	89.4	1,885,532	89.1	1,890,708	85.9
Black (nonHisp.)	67,175	4.5	65,304	4.0	80,568	4.3	91,157	4.3	113,362	5.1
Asian	44,813	3.0	44,210	2.7	69,973	3.8	79,152	3.7	82,716	3.8
Native Hawaiian/ Pacific Islander	NA	--	NA	--	NA	--	NA	--	5,725	0.3
Amer.Indian /Alaska Native	4,996	0.3	7,129	0.4	8,162	0.4	10,510	0.5	11,356	0.5
Hispanic	23,390	1.6	22,140	1.4	27,470	1.5	35,804	1.7	47,763	2.2
Two or more races	NA	--	NA	--	NA	--	NA	--	26,998	1.2
Not known	16,233	1.1	9,159	0.6	11,147	0.6	13,661	0.6	23,185	1.1

Table 4
Ethnicity of Alabama Nursing Population (Alabama Board of Nursing, 2005)

Ethnicity	Total	CNM	CNS	CRNA	CRNP	LPN	RN
African America	11261		21	35	61	4939	6205
American Indian	371		2	7	1	124	237
Asian	447	1		9	2	35	400
Caucasian/White	48165	12	117	1154	479	9597	36806
Hispanic/Latino	270			11	1	53	205
Middle Eastern	10				1		9
Multiracial (2 or more)	122	1		4	2	23	92
Native Hawaiian	12						12
No Response	2765	2	6	67	26	619	2045
Other	381		1	9	2	94	275
Unknown	7580		2	43		1896	5639

Supply and Demand Projections of Nurses

The numbers of existing nurses in the workforce become highly significant when viewed in light of supply and demand projections for nurses through the year 2020. Kimball and O'Neil (2002) suggested that the nursing shortage which exists today and is predicted to persist over the next 20 years is unique because of its relationship to a group of factors which have never existed before simultaneously:

1. An aging population of baby boomers- consumption of health care resources will rise without consideration for longer life expectancies or the expense and complexity associated with new developments in technology.

2. Fewer available workers- the number of fewer workers will be combined with a greater demand for those remaining workers who have technological skills.

3. An aging workforce-these nurses will be entering retirement in large numbers unless new roles and alternative career paths are developed for them.

4. Mismatch in ethnic distribution between the U.S. population and that of registered nurses- if students from the "Generation X" age group are not successfully recruited into the nursing profession, the under-thirty demographic, which is even more diverse than the overall population, will prove to be increasingly disconnected from the nursing profession in racial and ethnic terms.

5. Increased labor force participation and options for women- despite all efforts, nursing is still seen as primarily a female profession. However, as societal norms have changed, women have moved into other professions, men have

failed to enter the profession in large numbers, and no major technological innovations have occurred to change the work.

6. Shift in generational values- in contrast to the baby boomer generation, the Generation X workers, born after 1961, focus on relationships as opposed to achievement (Nagle, 2006). They require challenging work as well as the freedom to manage their time. They do not trust the bureaucracy of an institution, have a short attention span, have no expectation of job security, thoroughly dislike meetings, and do not function well under close supervision. Interestingly, this group of workers thrives on receiving feedback as often as possible from supervisors regarding job performance. These workers may have difficulty in the health care environment as it currently exists, with the layer-upon-layer of bureaucracy characteristic of most hospitals, the repetition of daily tasks on a specialized nursing unit, and the lack of time of most nurse managers to provide the constant feedback that they crave regarding job performance. In a work environment that tends to be sparing with rewards, kudos, and recognition, the job turnover created by these new workers will likely prove chaotic to health care in general and nursing in particular (Nagle, 2006).

   In comparison to these current workers are the Generation Y future workers. Born between 1979 and 1994, these individuals are the children of the baby boomers. They are estimated to number as many as 60 million and can be expected to impact healthcare because of their diversity. One in three is not Caucasian; one in four is a product of a single-parent household; three out of four have working mothers. This highly computerized generation, raised on cell phones and laptop computers, will become quickly frustrated if fellow nurses are not technologically proficient, if they are not able to serve a population of patients which is culturally and racially diverse, and if they cannot express their individuality with their uniforms (Fisher,1999). Though they may enter nursing initially, if the profession remains extremely traditional, they will quickly exit and move into another career.

7. Increased stress in the hospital work environment, leading to dissatisfaction and disillusionment on the part of the nurse- many nurses are no longer able to provide care that meets their own personal standards of competence and professionalism.

8. Active consumer participation in the health care system- a backlash against managed care practices that can lead to care being denied led to a belief that active participation by consumers in the health care system is the only way to ensure that it acts in the best interests of patients.

The National Center for Health Workforce Analysis (2006) estimated that at the national level, the number of licensed RNs is projected to remain consistent at approximately 2.7 million until around 2020. The number of licensed RNs is projected to increase slightly until 2012 but then to begin gradually declining as the number of RNs retiring and leaving the profession begins to exceed the number of new graduate nurses. Demand for full-time employed RNs is projected to increase 41% by 2020 on a national level, with the greatest demand occurring in settings that primarily serve the elderly. For the purposes of this research project, "full-time" is defined as a nurse who is working 36-40 hours per week. The National Center for Health Workforce Analysis estimates that Alabama's supply of RNs will need to increase 31% by 2020 in order to meet the needs of the population for health care, although the demand for RNs in the state will actually increase 41%. Table 5 shows the projected change in supply of nurses through the year 2020 on a state-by-state basis, whereas Table 6 depicts the projected demand for RNs from 2000 until the year 2020.

Table 5

Full-time Employed RN Supply, 2000 to 2020 (National Center for Health Workforce Analysis)

STATE	RN Estimate	Projection				Change from 2000–2020
	2000	2005	2010	2015	2020	
AK	4,200	3,800	3,200	2,500	2,000	-52%
AL	29,900	33,700	36,600	38,200	39,100	31%
AR	16,400	18,100	19,300	19,800	19,900	21%
AZ	29,000	30,100	30,700	30,500	30,100	4%
CA	155,500	156,200	153,300	148,200	144,300	-7%
CO	28,100	28,300	27,200	25,100	23,000	-18%
CT	28,000	25,400	22,900	19,900	17,200	-39%
DC	7,300	6,900	6,500	5,900	5,400	-26%
DE	6,100	6,300	6,300	6,100	5,800	-5%
FL	108,100	111,100	112,000	110,200	106,600	-1%
GA	49,400	49,500	48,200	45,300	41,800	-15%
HI	7,200	7,700	7,900	8,100	8,200	14%
IA	25,200	26,300	26,600	26,000	25,000	-1%
ID	7,000	7,300	7,400	7,300	7,100	1%
IL	88,100	88,000	85,600	81,900	77,100	-12%
IN	41,400	41,800	41,600	40,400	38,500	-7%
KS	20,600	21,600	22,100	21,800	21,100	2%
KY	28,800	32,300	34,700	35,500	35,300	23%
LA	30,200	34,100	37,200	39,100	39,800	32%
MA	63,600	62,700	60,100	56,000	51,400	-19%
MD	36,400	36,500	35,600	33,800	31,800	-13%
ME	11,200	11,600	11,600	11,100	10,500	-6%
MI	70,000	72,400	72,000	68,900	66,000	-6%
MN	39,200	41,000	41,800	41,200	39,700	1%
MO	44,400	45,600	45,700	44,200	42,800	-4%
MS	18,400	20,900	22,600	23,600	23,800	29%
MT	6,400	6,500	6,500	6,300	5,900	-8%
NC	59,900	64,500	67,400	68,600	68,000	14%
ND	5,400	5,700	5,800	5,800	5,600	4%
NE	13,300	14,100	14,700	14,900	14,900	12%
NH	9,300	9,500	9,300	8,800	8,100	-13%
NJ	60,400	58,200	55,000	50,500	44,900	-26%
NM	9,600	10,500	11,000	11,300	11,500	20%
NV	9,000	9,300	9,200	8,700	8,100	-10%
NY	138,100	142,600	142,300	137,400	131,500	-5%
OH	86,900	89,300	88,900	85,500	79,700	-8%
OK	18,900	20,600	21,500	22,100	22,500	19%
OR	21,800	22,600	22,400	21,100	19,800	-9%
PA	111,800	105,900	99,200	90,600	80,400	-28%
RI	9,300	9,300	9,000	8,400	7,900	-15%
SC	23,400	25,100	25,900	26,200	26,000	11%
SD	7,000	7,600	7,900	7,900	7,800	11%
TN	40,900	42,700	42,800	41,800	40,100	-2%
TX	107,600	115,300	118,700	119,000	118,500	10%
UT	11,400	12,900	14,100	14,900	15,400	35%
VA	46,300	47,600	47,600	46,300	44,000	-5%
VT	4,900	5,000	4,800	4,400	4,000	-18%
WA	37,900	38,100	37,300	35,100	33,000	-13%
WI	41,300	42,900	43,300	42,200	40,100	-3%
WV	13,200	14,200	14,600	14,600	14,000	6%
WY	3,200	3,300	3,300	3,300	3,300	3%
U.S.	**1,890,700**	**1,942,500**	**1,941,200**	**1,886,100**	**1,808,000**	**-4%**

Table 6

Full-time Employed RN Demand, 2000 to 2020 (National Center for Health Workforce Analysis)

State	RN Estimate	Projection					Change from 2000–2020
	1996	2000	2005	2010	2015	2020	
AK	4,400	4,300	4,900	5,500	6,100	6,700	56%
AL	30,900	31,400	33,900	36,800	40,300	44,400	41%
AR	16,100	18,500	20,200	22,000	24,300	26,900	45%
AZ	28,900	34,000	38,700	43,200	48,500	54,700	61%
CA	159,500	165,500	178,700	200,900	228,900	260,900	58%
CO	27,500	30,000	34,000	38,100	42,500	47,500	58%
CT	28,200	30,200	31,800	34,000	36,600	39,600	31%
DC	8,500	8,800	8,900	9,500	10,200	11,000	25%
DE	5,800	6,400	7,000	7,600	8,100	8,800	38%
FL	107,300	115,500	129,300	144,700	164,300	187,800	63%
GA	48,700	52,800	58,400	64,600	71,600	79,500	51%
HI	8,200	10,000	11,100	12,400	13,900	15,700	57%
IA	24,400	27,100	28,600	30,000	31,800	34,100	26%
ID	6,000	6,200	7,300	8,200	9,200	10,500	69%
IL	88,400	85,200	89,600	94,900	101,300	109,000	28%
IN	40,800	43,000	46,600	49,800	53,500	57,400	33%
KS	19,000	20,200	21,500	23,100	24,900	27,000	34%
KY	26,900	29,200	31,200	33,500	36,300	39,400	35%
LA	30,700	31,800	34,200	37,100	40,600	44,600	40%
MA	59,900	68,300	71,700	76,200	81,700	87,800	29%
MD	38,300	36,800	39,400	42,600	46,100	50,000	36%
ME	11,400	12,400	13,100	14,100	15,300	16,800	35%
MI	69,100	67,700	71,300	75,100	79,600	84,300	25%
MN	35,400	39,200	42,600	46,200	50,400	55,300	41%
MO	45,000	51,600	54,900	58,600	63,100	68,200	32%
MS	18,700	19,900	21,400	23,100	25,400	28,000	41%
MT	5,800	5,500	6,300	7,000	7,800	8,800	60%
NC	54,400	61,500	68,400	75,500	83,700	92,900	51%
ND	5,900	5,800	6,200	6,700	7,300	8,000	38%
NE	13,400	14,800	15,900	17,100	18,500	20,200	36%
NH	9,800	10,500	11,500	12,600	13,800	15,100	44%
NJ	59,700	65,600	69,700	74,600	80,400	87,300	33%
NM	10,200	11,000	12,500	14,100	15,900	18,000	64%
NV	8,800	10,200	12,100	13,300	14,700	16,200	59%
NY	148,100	151,000	156,000	163,800	174,000	185,700	23%
OH	86,400	90,500	95,700	101,000	107,300	113,700	26%
OK	18,400	18,400	20,000	22,000	24,300	27,000	47%
OR	21,100	22,000	24,800	27,700	31,100	35,100	60%
PA	107,100	110,200	115,000	120,300	127,200	135,200	23%
RI	9,300	10,900	11,400	12,000	12,800	13,800	27%
SC	24,200	25,700	28,300	31,100	34,400	38,100	48%
SD	7,000	6,900	7,500	8,100	8,700	9,500	38%
TN	43,100	50,600	55,800	61,300	67,800	75,400	49%
TX	117,000	129,100	143,800	160,600	179,900	202,100	57%
UT	11,000	12,000	13,800	15,600	17,500	19,600	63%
VA	47,800	49,200	53,600	58,600	64,300	70,300	43%
VT	4,300	4,600	5,000	5,400	5,800	6,300	37%
WA	34,400	36,300	40,800	46,100	52,100	59,100	63%
WI	37,200	37,000	39,800	42,800	46,300	50,300	36%
WV	13,500	12,600	13,200	13,900	14,700	15,700	25%
WY	3,500	3,500	4,000	4,500	5,100	5,800	66%
U.S.	**1,889,300**	**2,001,500**	**2,161,300**	**2,347,000**	**2,569,800**	**2,824,900**	**41%**

Internationally Educated Nurses

One aspect of increasing the racial and ethnic diversity of the nursing workforce involves the recruitment of foreign educated nurses. In the year 2000, it was estimated that approximately 3.7% of the total nursing workforce was composed of internationally educated nurses. A summary of the top five countries represented by internationally educated nurses who wrote the national licensure examination is shown in Table 7. Table 7 shows the number of internationally educated candidates writing the licensure examination for the first time in 2006. The candidates are divided with respect to volume, and numbers reported include both RNs and LPNs.

Table 7
2006 First-Time Internationally Educated Candidates: *Top Five Countries (National Council of State Boards of Nursing)*

Ranking	Jan-March	April-June	2006 Total for 1st Quarter
1st	Phillippines 2711	Phillippines 3460	Phillippines 6171
2nd	India 765	India 1099	India 1864
3rd	South Korea 480	South Korea 468	South Korea 948
4th	Canada 241	Canada 263	Canada 504
5th	Cuba 103	Cuba 157	Cuba 260

At the national level, both the National Council of State Boards of Nursing (NCSBN) as well as the Commission on Graduates of Foreign Nursing Schools (CGFNS) collect systematic data and conduct research on internationally educated nurses. However, data maintained by CGFNS may be incomplete since it does not maintain a database containing internationally educated nurses who took the National Council Licensure Examination for Registered Nurses (NCLEX®-RN) in approximately 20% of states that do not require a certificate from CGFNS prior to writing the licensure examination. This is highly significant in the states of California and New York, since they traditionally employ the largest numbers of internationally educated nurses (Xu and Kwak, 2005). In addition, according to Carole Stacy (2006), Director of Michigan's Nursing Workforce Center, approximately 2500-3000 Canadian nurses cross the Canadian-American border to work in Detroit hospitals, with somewhat smaller numbers working in Michigan's other two Canadian border sites.

The increasing efforts at diversity in terms of internationally educated nurses have resulted in an emerging profile of a typical foreign educated nurse. The average foreign educated nurse is a young unmarried female from the Philippines, Canada, India, South Korea, or Cuba. She typically has more years of experience

as a nurse, is more likely to be baccalaureate-prepared, and usually works more hours than her American-born-and educated counterpart. She usually works full-time in nursing and remains longer in the profession. The rate of internationally educated nurses who leave nursing is half that of American-born nurses. The foreign educated nurse has proved to be very advantageous to inner city hospitals such as those in New York and Chicago (Xu and Kwak, 2005) and is being utilized as an effective but globally detrimental, short-term solution to America's nursing shortage.

Forecasted Population Growth

As previously mentioned, there is a great need for the nursing profession to become representative of the population it serves. According to the U.S. Department of Health and Human Services National Center for Health Workforce Analysis (2003), minorities are clearly underrepresented in the nursing workforce in relation to their proportion of the total population. However, reliance on minority caregivers will increase as minorities begin to constitute a larger portion of the population entering the workforce. In 2000, physicians spent approximately 31% of patient care hours providing services to minority patients. By the year 2020, those patient care hours will increase to 40%. Those hours can be increased greatly when considered in terms of the number of nursing hours required to provide collaborative support to the physician in a variety of health care settings.

The National Center for Health Workforce Analysis (2003) completed a forecast of population growth for the United States as shown in Table 8. Higher birth rates among racial and ethnic minority groups in relation to non-Hispanic whites and immigration rates suggest that the trend toward increased racial and ethnic diversity in the United States will continue. By the year 2020, it is projected that non-Hispanic whites will constitute 61% of the population, a decrease of 8% from 2000's percentage of 69. Furthermore, the percentage of African Americans in the population will increase from 2000's rate of 12.3 to 13.1 % by 2020, while all other minorities, including Hispanic whites, will increase from 2000's rate of 18.6 to 26.1%. The growth in the Hispanic population is the factor primarily responsible for the increase in the minority population.

Table 8
Population Distribution by Race (U.S. Department of Health and Human Services, National Center for Health Workforce Analysis, 2003)

Year	Non-Hispanic White	African American	All Other
2000	69.1%	12.3%	18.6%
2005	67.1%	12.5%	20.4%
2010	64.8%	12.7%	22.5%
2015	62.8%	12.9%	24.3%
2020	60.8%	13.1%	26.1%

Differences in Health Care Utilization by Race and Ethnicity

The need for increased racial and ethnic diversity in the nursing workforce is further emphasized when the differences in health care utilization by race or ethnicity are detailed. Hargraves, Cunningham and Hughes (2001) found differences in access to care and use of health care services for non-Hispanic whites and minorities enrolled in managed care plans. Approximately 78% of non-Hispanic whites had a regular health care provider in comparison to only 74% of Hispanics and African Americans. During their latest physician visit, 28% of non-Hispanic whites were found to have seen a specialist in comparison to 26% for African Americans and 22% for Hispanics. Furthermore, access to affordable medical insurance is frequently cited as a major factor in determining access to care. The U.S. Census Bureau estimates that in 1999, 67% of Hispanics had some form of medical insurance in comparison to 79% of African Americans and 89% of non-Hispanic whites. Drake and Lowenstein (1998) found that people without medical insurance tend to receive less preventative care and have higher rates of hospitalization for potentially avoidable problems.

Differences in Health Care Utilization According to Language Skills

Increasing the racial and ethnic diversity in the nursing workforce would potentially increase the rate of health care utilization for Hispanic patients in particular, since most have a country of origin which is non-English speaking. Kravitz, Helms, Azari, Antonius, and Melnikow (2000) found that Spanish-speaking patients were less likely to report for recommended laboratory studies when compared to English-speaking patients. It was found that patients requiring a translator required more physician time per visit, specifically 9.1 additional minutes for Spanish-speaking patients and 5.6 additional minutes for Russian-speaking patients.

In comparison, Derose and Baker (2000) conducted a survey involving 724 participants. It was found that of participants who had experienced at least one visit to a physician during the previous three months, those with limited English proficiency had 22% fewer visits in comparison to participants whose English proficiency was rated as good-to-excellent.

Further research on the role of linguistic competence on the part of healthcare providers was conducted in 2006 by Whitman. She cited the U.S. Census Bureau's estimation that 19% of the current population speaks English less than fluently. In Alabama specifically, the foreign-born population has more than doubled over the past 15 years, with 177,000 of the populace speaking a language other than English in their home environment. Whitman also noted that, in confirmation of previously mentioned research, language barriers can result in consumers receiving incorrect

diagnoses and a greater number of procedure performed, as well as failure to comply with physician directives. When hospital Chief Executive Officers (CEOs) were surveyed regarding the presence of trained interpreters on staff, almost 53% indicated that they did not have such an employee in-house. Barriers to the hiring of such a person were cited as the difficulty in finding trained interpreters, the expense, and the fact that many non-English speaking patients arrive with an informal interpreter (Whitman, 2006). However, more than 79% of the CEOs surveyed saw a need for health care workers to learn a language other than English, with 78.3% specifying Spanish as a priority. More than 65% of Human Resource Directors admitted that their hospitals do not make customer satisfaction surveys available in languages other than English.

In the same study, almost 52% of RNs surveyed stated that they were not made aware of the different lifestyle and dietary habits of the various cultural groups in their region of the State. Almost 46% of the RNs surveyed reported that incidences involving improper patient education and patients' failure to comply with physician directives had occurred due to the increase in foreign-born patients. In contrast to the Chief Executive Officers surveyed, almost 90% of RNs surveyed see a need for health care workers to learn a language other than English, with more than 97% of RNs viewing Spanish as being a priority (Whitman, 2006).

The urgency to make nurses proficient in providing care to a growing Spanish-speaking population is confirmed by findings released by the Kaiser Foundation (2006). According to the Foundation, Hispanics have now replaced African-Americans as the nation's largest racial/ethnic minority group and accounted for 14% of the 2004 U.S. population, as compared to 12% for African-Americans. The U.S. Census Bureau estimates that the Hispanic population will increase to 20% by the year 2030 (Kaiser Foundation, 2006). Furthermore, the foreign-born population is changing geographically in the United States. In 2000, more than two-thirds of the nation's foreign-born population lived in six states: California, New York, Texas, Florida, New Jersey, and Illinois (Capps, Fix, and Passel, 2002). Now, however, an entirely new group of states have the fastest growing immigrant populations. Between 1990 and 2000, the following states had the highest rates of immigrant growth:

- North Carolina: 274%
- Georgia: 233%
- Nevada: 202%
- Arkansas: 196%
- Utah: 171
- Tennessee: 169%
- Nebraska: 165%
- Colorado: 160%
- Arizona: 136%

- Kentucky: 135%.

However, there are actually 22 states which are considered “new growth” areas because the rate of immigration was greater than 91% from 1990-2000. Alabama is considered a “new growth” state (Capps, Fix, and Passel, 2002). These “new growth” states are faced with the challenge of melding a population who has fewer marketable skills, lower incomes, and a weaker command of English than the existing group of citizens into the general populace. Recent immigrants will have a great need for employment providing health insurance, English language courses, as well as knowledgeable interpreters, little of which may actually be available to them (Capps, Fix, and Passel, 2002).

The need for nurses to be both culturally and linguistically competent is underscored by the report of the national survey of Latinos released by the Pew Hispanic Center in 2002. The survey found that Hispanics view themselves as having distinct cultures based on their country of origin. Hispanics born outside the United States who are Spanish-speaking tend to believe that success in the United States can be achieved through a person doing what is best for himself rather than what is best for others in the nation. A major philosophical difference in immigrants and native-born Latinos is the belief in fatalism, the belief that planning for the future is useless because of a lack of control over destiny. Foreign-born Latinos who immigrated after the age of 10 and who speak Spanish primarily tend to agree that the future is determined by fate. Native-born, English-speaking Latinos usually do not express a belief in fatalism (Brodie, Steffenson, Valdez, Levin, and Suro, 2002). Such a belief could affect immigrant health care by discouraging participation in preventive health practices.

Projected Regional Population Growth

The projected growth in the minority population, particularly that of non-white Hispanics, is reflected in the accompanying projected growth in specific geographical areas such as the West and the South. Such information can be utilized in formulating models projecting the demand for nurses (National Center for Health Workforce Analysis, 2003). It is significant that a great deal of the research which has been performed projecting the demand for health care workers over the next twenty years has focused solely on the shortage of physicians. Table 9 shows the projected regional population growth.

Table 9
Population Projections by Region and Year (United States Census Bureau)

	1995	2000	2005	2010	2015	2020	2025
Region							
Northeast	51,466	52,107	52,767	53,692	54,836	56,103	57,392
Midwest	61,804	63,502	64,825	65,915	67,024	68,114	69,109
South	91,890	97,613	102,788	107,597	112,384	117,060	121,448
West	57,596	61,413	65,603	70,512	75,889	81,465	87,101
Total	262,755	274,634	285,981	297,716	310,133	322,742	335,050

Findings Regarding Initial Licensure of Minorities

An analysis of the initial licensure of minorities to practice nursing in Alabama on a year-by-year basis from 1990-2005 was performed in order to determine the numbers of minorities who were newly licensed each year. A decrease was noted in the initial licensure of members of every racial or ethnic minority since 1990 except for those licensees who count themselves to be multi-racial as shown in Table 12. Total initial licensure of members of this racial minority increased 44.95% from 1990-2005. Licensure of African-Americans saw the greatest decrease, with a 40.33% decrease from 1990-2005, as summarized in Table 10; another significant decrease was noted in numbers of Native Americans licensed, as shown in Table 11.

The immediate need to redouble the efforts of recruiters to draw new minorities into the nursing profession and to retain the minority nurses currently in the system is underscored by a review of the change in Alabama's total nursing population. As shown in Table 10, the State's total population of licensed nurses has sustained several significant decreases. From 1995-1996, the population decreased 5.6%. Stability ensued until after the new millenium, and from 2001-2002, another 9.96% decrease was experienced. Finally, the nursing population decreased 7.27% again from 2004-2005.

However, the number of nurses lost from the State nursing population must be considered in light of the number added through examination, endorsement, and reinstatement of lapsed licenses. In 1995, more licensees were added by examination than ever in the 15-year period being reviewed. During that year, 4,047 new licensed nurses were added to the population. The number of nurses added through endorsement peaked in 2005, with 1,716 licensees added. Finally, the number of nurses whose lapsed licenses were reinstated peaked in 2001, with 1,754 licensees added through reinstatement. Overall, the total licensed nursing population in Alabama increased from the lowest point in the past fifteen years, 47,495 in 1990, to a high of 67,362 noted in 2004. This may be viewed as an overall increase of 29.49%, or 1.97% per year for the past fifteen years.

Table 10: African-American Nursing Population According to Year of Initial Licensure

Years	Ethnic Licensees	Total Nursing Population	Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	4419 RNs: 2056 LPNs: 2363	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	3386 RNs: 1694 LPNs: 1692	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	2812 RNs: 1414 LPNs: 1398	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

Table 11: Native-American Nursing Population According to Year of Initial Licensure

Years	Ethnic Licensees	Total Nursing Population	Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	121 RNs: 53 LPNs: 68	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	120 RNs: 77 LPNs: 43	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	75 RNs: 53 LPNs: 22	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

Table 12: Multi-Racial Nursing Population According to Year of Initial Licensure

Years	Ethnic Licensees	Total Nursing Population	l Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	18 RNs: 8 LPNs: 10	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	22 RNs: 17 LPNs: 5	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	27 RNs: 18 LPNs: 9	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

It is also highly significant that a decrease of 83.10% was seen in the initial licensure of members of “other” racial or ethnic minority groups as summarized in Table 13. Because these individuals did not identify the groups that they claim membership in, they cannot be placed in a specific minority classification. However, the mere fact that they view themselves as a minority is significant in and of itself.

Table 13: Members of "Other" Minority Population According to Year of Initial Licensure

Years	Ethnic Licensees	Total Nursing Population	Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	311 RNs: 224 LPNs: 87	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	150 RNs: 115 LPNs: 35	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	103 RNs: 69 LPNs: 34	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

Furthermore, these data cannot be analyzed without considering the numbers of new licensees who chose not to respond, as shown in Table 14. The fact that the number of nurses who do not respond to such questions is decreasing steadily indicates that new licensees may be seeing the value of providing input on their work environment and individual demographics to the Board. Although these data are certainly reflective of the overall nursing shortage which is affecting Alabama as well as the rest of the nation, it also speaks to the need to make specific recruitment efforts toward drawing members of racial and ethnic minority groups into nursing initially, and further efforts toward maintaining them as viable members of the profession once they begin practicing.

Table 14: Nurses Who Chose Not to Respond According to Year of Initial Licensure

Years	No Response Licensees	Total Nursing Population	Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	1899 RNs: 1063 LPNs: 836	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	3137 RNs: 1841 LPNs: 1296	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	553 RNs: 453 LPNs: 100	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

When the initial licensure of members of minority groups is broken down into specific numbers of RNs and LPNs, specific trends may be noted per each minority group:

1. Although numbers of newly licensed African-American RNs and LPNs have decreased steadily since 1990, the greatest decrease has been in African-American LPNs. RNs have decreased 34.14%, while LPNs have decreased 45.78%.

2. When numbers of newly licensed Asian nurses are reviewed, it is noted that although a small increase was initially noted in the licensure of Asian RNs (5.67%), since 2001, the numbers have steadily declined for both RNs and LPNs, as summarized in Table 15. While RNs have decreased 32.21% from 2000-2005, cumulative numbers of LPNs have decreased 52.24% since 1990.

Table 15: Asian Nursing Population According to Year of Initial Licensure

Years	Asian Licensees	Total Nursing Population	Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	174 RNs: 141 LPNs: 33	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	174 RNs: 149 LPNs: 25	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	119 RNs: 101 LPNs: 18	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

3. Review of numbers of newly licensed Hispanic nurses reveals that, although numbers of RNs increased from 1990 to 2000, by 2005, a 26.51% decrease was sustained, as summarized in Table 16. However, despite an initial decrease in the numbers of Hispanic LPNs (35.71% decrease from 1990-2000), their numbers began to rebound and by 2005 had increased 61.11%.

Table 16: Hispanic Nursing Population According to Year of Initial Licensure

Years	Ethnic Licensees	Total Nursing Population	Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	101 RNs: 73 LPNs: 28	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	101 RNs: 83 LPNs: 18	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	90 RNs: 61 LPNs: 29	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

4. The greatest increase in the initial licensure of any minority group has been seen in multi-racial nurse licensure. From 1990-2000, the number of multi-racial RNs increased 112.5%.

5. Review of numbers of newly licensed Native American nurses reveals that although numbers of RNs initally increased 45.28% from 1990-2000, from 2000-2005, a 31.17% decrease was sustained. The greatest decrease in numbers of Native American nurses has been in numbers of LPNs (48.84% decrease by 2005).

6. Initial licensure of numbers of nurses classifying themselves as members of "other" minority groups has steadily decreased since 1990. By 2005, licensure of nurses in this group had decreased 83.10% since 1990.

7. Nurses who fail to respond to the ethnicity question have decreased in numbers also since 2000. From 2000-2005, RNs failing to respond had decreased 75.39%, while LPNs had decreased 92.28% from 1996-2000 numbers. For comparative purposes, the licensure of Caucasian nurses is summarized in Table 17. To provide an overall picture of the ethnicity of the nursing population, Table 18 shows the ethnicity of registered nurses in comparison to the ethnic distribution of the U.S. population (Bureau of Health Professions, U.S. Department of Health and Human Services, 2004).

Table 17: Caucasian Nursing Population According to Year of Initial Licensure

Years	Caucasian Licensees	Total Nursing Population	Licensees Added: Examination, Endorsement, and Reinstatement
1990-1995	22214 RNs: 15003 LPNs: 7211	**1990**:47,495 **1991**:49,016 **1992**:50,728 **1993**:52,492 **1994**:57,761 **1995**:57,679	**1990:** **Examination:** 2294 **Endorsement:** 1195 **Reinstatement:** 1102 **1991:** **Examination:** 2722 **Endorsement:** 1365 **Reinstatement:** 526 **1992:** **Examination:** 3331 **Endorsement:** 1549 **Reinstatement:** 801 **1993:** **Examination:** 3613 **Endorsement:** 1390 **Reinstatement:** 801 **1994:** **Examination:** 4232 **Endorsement:** 1245 **Reinstatement: data unavailable** **1995:** **Examination:** 4047 **Endorsement:** 1347 **Reinstatement: data unavailable**
1996-2000	14521 RNs: 11199 LPNs 3322	**1996:** 54,410 **1997:** 55,999 **1998:** 63,982 **1999:** 63,459 **2000:** 67,339	**1996:** **Examination:** 3643 **Endorsement:** 1346 **Reinstatement: data unavailable** **1997:** **Examination:** 3517 **Endorsement:** 1423 **Reinstatement: data unavailable** **1998:** **Examination:** 2869 **Endorsement:** 1264 **Reinstatement: data unavailable** **1999:** **Examination:** 2520 **Endorsement:** 1191 **Reinstatement:** 953 **2000:** **Examination:** 2222 **Endorsement:** 1131 **Reinstatement:** 1534
2001-2005	15271 RNs: 6272 LPNs 8999	**2001:** 67,302 **2002:** 60,599 **2003:** 62,294 **2004:** 67,362 **2005:** 62,463	**2001:** **Examination:** 2054 **Endorsement:** 1045 **Reinstatement:** 1754 **2002:** **Examination:** 2210 **Endorsement:** 1086 **Reinstatement:** 1537 **2003:** **Examination:** 2396 **Endorsement:** 1174 **Reinstatement:** 1393 **2004:** **Examination:** 2914 **Endorsement:** 1361 **Reinstatement:** 1187 **2005:** **Examination:** 3225 **Endorsement:** 1716 **Reinstatement:** 1502

Table 18: Distribution of U.S. Registered Nurses by Racial/Ethnic Background

Racial/Ethnic Background	% of Licensed Nurses	% of Population
White, non-Hispanic	88.4%	67.9%
African-American, non-Hispanic	4.6%	12.2%
Native-American, non-Hispanic	0.4%	0.7%
Hispanic	1.8%	13.7%
Asian/Pacific Islander, non-Hispanic	3.3%	4.1%
Multi-racial, non-Hispanic	1.5%	1.3%

Findings Regarding Minority Nurses Approved for Advanced Practice

The ethnic origin of all nurses who have received approval to practice as Advanced Practice Nurses since 1990 was reviewed. Of the minority nurses who opted to respond to survey questions from the Alabama Board of Nursing regarding ethnicity, the minority group most strongly represented as receiving approval to practice as Advanced Practice Nurses was that of African-American nurses. Of the 1770 nurses who have received Advanced Practice approval, 168 were African-American (9.49%). When individual categories of Advanced Practice were reviewed, it was found that African-American nurses made up 15% of the number of Clinical Nurse Specialists approved, 6.25% of the number of Certified Nurse Midwives approved, 2.97% of the total number of Certified Registered Nurse Anesthetists approved, and 12.32% of the total number of Certified Registered Nurse Practitioners approved. A summary of this information is shown in Table 19.

Table 19: African-American Nurses Approved for Advanced Practice 1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL APPROVED
1	15	21	131	168

When numbers of Asian nurses receiving Advanced Practice approval since 1990 were reviewed, it was found that of the 1770 nurses who have received approval, only 14 have been of Asian ethnic origin (.79%). When individual categories of Advanced Practice were reviewed, it was found that Asian nurses made up .84% of the number of Certified Registered Nurses Anesthetists approved, as well as .75% of the number of Certified Registered Nurse Practitioners approved. A summary of this information is shown in Table 20.

Table 20:Asian Nurses Approved for Advanced Practice 1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL APPROVED
0	0	6	8	14

Review of numbers of Hispanic nurses receiving Advanced Practice approval since 1990 revealed that of the 1770 nurses who have received approval, 17 have been of Hispanic ethnic origin (.96%). When individual categories of Advanced Practice were reviewed, it was found that Hispanic nurses made up 1.27% of the total number of Certified Registered Nurse Anesthetists approved, but only .75% of the number of Certified Registered Nurse Practitioners approved. A summary of this information is shown in Table 21.

Table 21: Hispanic Nurses Approved for Advanced Practice 1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL APPROVED
0	0	9	8	17

Review of numbers of nurses who identified themselves as being of multi-racial ethnic origin and have received Advanced Practice approval since 1990 revealed that of the 1770 nurses who have been approved, only six have been of multi-racial ethnicity (.34%). When individual categories of Advanced Practice were reviewed, it was found that multi-racial nurses made up only .42% of the total number of Certified Registered Nurse Anesthetists approved, and only .28% of the number of Certified Registered Nurse Practitioners approved. A summary of this information is shown in Table 22.

Table 22: Multiracial Nurses Approved For Advanced Practice 1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL APPROVED
0	0	3	3	6

Upon review of numbers of nurses who identified themselves as being of multi-racial ethnic origin and have received Advanced Practice approval since 1990, it was found of the 1770 nurses who have been approved, only eight have been of Native American ethnic origin (.45%). When individual categories of Advanced Practice were reviewed, it was revealed that Native American nurses made up only .57% of the total number of Certified Registered Nurse Anesthetists approved, and only .38% of the number of Certified Registered Nurse Practitioners approved. A summary of this information is shown in Table 23.

Table 23: Native American Nurses Approved for Advanced Practice 1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL APPROVED
0	0	4	4	8

When the number of nurses who identified themselves as being members of "other" minority groups and have received Advanced Practice approval since 1990 was scrutinized, it was found that of the 1770 nurses who have received approval, 14 have been of "other" ethnic origin (.79%). When individual categories of Advanced Practice were reviewed, it was revealed that this group of nurses made up 6.25% of the total number of Certified Nurse Midwives approved, 1% of the number of Clinical Nurse Specialists approved, .57% of the number of Certified Registered Nurse Anesthetists approved, and only .66% of the number of Certified Registered Nurse Practitioners approved. A summary of this information is shown in Table 24.

Table 24: Nurses of "Other" Minority Groups Approved for Advanced Practice 1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL APPROVED
2	1	4	7	14

Information on the racial and ethnic origin of the nursing population cannot be presented without also documenting the number of Advanced Practice nurses who opted not to respond to questions regarding race and ethnicity. Of Advanced Practice nurses completing the survey questions, 173 (9.77%) chose not to reveal their ethnic origin. The nurses choosing not to respond made up a significant number of Clinical Nurse Specialists (9%), Certified Registered Nurse Anesthetists (13.15%), and Certified Registered Nurse Practitioners (6.49%). This information is summarized in Table 25.

Table 25: Advanced Practice Nurses Failing to Respond to Ethnicity Questions 1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL FAILING TO RESPOND
2	9	93	69	173

For comparative purposes, the numbers of Caucasian nurses who received approval to practice as Advanced Practice nurses since 1990 have been provided. Of the 1770 nurses who received Advanced Practice approval, 1486 (83.95%) were of Caucasian ethnic origin. When individual categories of Advanced Practice nurses were reviewed, it was found that Caucasian nurses made up 68.75% of the total number of Certified Nurse Midwives, 75% of the total number of Clinical Nurse Specialists, 80.2% of the total number of Certified Registered Nurse Anesthetists, and 78.63% of the total number of Certified Registered Nurse Practitioners receiving approval. This information is summarized in Table 26.

Table 26: Caucasian Nurses Approved for Advanced Practice1990-2005

Certified Nurse Midwives	Clinical Nurse Specialists	Certified Registered Nurse Anesthetists	Certified Registered Nurse Practitioners	TOTAL APPROVED
11	75	567	833	1486

Analysis of the approval for Advanced Practice nurses according to ethnic origin shows a consistency existing between numbers of minority nurses who receive licensure and minority nurses achieving Advanced Practice status. In both cases, nurses who are of African-American origin make up the largest minority group being licensed as well as the largest minority group achieving Advanced Practice status. However, inconsistency also exists when considered in light of Alabama's surging Hispanic population. According to a 2006 report by the Associated Press, Alabama's Hispanic population has increased 36.4% since 2000. Furthermore, the University of Alabama's Department of Geography (2006) stated that the Hispanic population in Shelby, Chilton, and Coosa counties increased between 450-2193% from 1990 to 2000, while the Hispanic population of Jefferson and Bibb Counties increased between 230-450%. If Alabama's nursing population is to achieve an ethnic consistency which is reflective of the citizenry being served, a program for the recruitment of Hispanic nursing students as well as Hispanic faculty must be implemented.

Table 27: Licensure of Males to Practice Nursing in Alabama- 1990-2005

Year of Licensure	% Male LPNs Newly Licensed	% Male RNs Newly Licensed
1990	7.20%	8.11%
1991	6.98%	9.84%
1992	7.99%	9.43%
1993	9.57%	10.17%
1994	10.57%	12.31%
1995	9.05%	13.61%
1996	7.43%	14.32%
1997	7.44%	14.86%
1998	6.49%	12.23%
1999	5.15%	12.12%
2000	3.81%	11.40%
2001	4.32%	10.66%
2002	5.49%	9.22%
2003	5.2%	8.38%
2004	5.93%	8.94%
2005	7.01%	6.98%

The licensure of males to practice nursing in Alabama from 1990-2005 was reviewed, as shown in Table 27. When numbers of LPNs were analyzed, it was noted that the number of male licensees either remained consistent or increased from 1990 until 1994, when it peaked at 10.57% of the total LPN population.

Beginning in 1995, their numbers began to decrease until 2000 from 9.05% of the total LPN population to 3.81%. From 2001 until 2004, the percentage of male LPN licensees either increased or remained consistent, and then increased significantly in 2005 to 7.01%. This is consistent with the nationwide trend in licensure of male LPNs according to the Bureau of Labor Statistics of the U.S. Department of Labor. This agency reported a nationwide increase in the number of male LPNs of 2% from 1995 to 2005, from 4.6% in 1995 to 6.6% in 2005. The agency did not report whether some years numbers remained relatively consistent without a significant increase or decrease such as occurred in Alabama.

When numbers of RNs were analyzed, it was noted that the number of male licensees either remained consistent or increased from 1990 until 1997, when it peaked at 14.86% of the total RN population. Beginning in 1998, their numbers began to consistently decrease. In 2005, male licensees made up only 6.98% of the total RN population, the lowest percentage in the entire 15-year period reviewed. This is inconsistent with the nationwide trend in licensure of male RNs according to the 2004 National Sample of Registered Nurses, a nationwide survey conducted by the Bureau of Health Professions of the Health Resources and Services Administration. The 2004 survey reported a nationwide increase of 0.3% in the licensure of male RNs from 2000 until 2004, from 5.4% in 2000 to 5.7% in 2004.

Analysis of the numbers of male licensees shows that, while efforts to recruit and retain male LPNs obviously have been successful and should be continued, emphasis must be placed on recruitment of male RNs. If the trends in numbers of male licensees continues, the number of male RNs licensed in 2006 will likely decrease even further, while the number of male LPNs licensed in 2007 is expected to remain consistent or increase.

Recommendations Based on Findings

When numbers of males and minorities initially licensed to practice nursing in Alabama are compared with the total nursing population for the State, it becomes clear that, in accordance with the nationwide trend, males and minorities are clearly underrrepresented in nursing in Alabama. Potential solutions to this problem may be found in the literature. Dr. Randolph Rasch stated that men and minorities tend to think of other professions such as law and business when considering financial gain and career opportunities (Hilton, 2005). A connection must be established with these groups at the elementary school level with guidance counselors in order to allow students to consider the opportunities and financial compensation available in nursing. As shown in Table 28 using information collected by the Alabama College System, although aggregate enrollment according to declared major is not known, enrollment in postsecondary institutions is increasing in Alabama after a decrease from the 2003-2004 academic year to the 2004-2005 academic year (Alabama College System, 2006).

Dr. Rasch also remarked that minorities tend to identify strongly with their community base. Members of these groups tend to enter nursing because they already know someone like them in the profession. Because of this, nursing leaders should reach out to the leaders of the minority communities and establish a bond with them. Nursing leaders should engage in discussion with ethnic community leaders regarding the health care needs in those communities and how to best work with the community members to address those needs and build a trusting relationship in the process (Hilton, 2005).

Table 28: Alabama College System Student Enrollment by Gender and Race 2001-2006

Year of Enrollment	Male Students	Female Students	Caucasian Students	African-American Students	Other Ethnic Origin Students	Total Enrollment
2001-2002	38,188	49,471	61,650	21,735	4,274	87,659
2002-2003	39,276	55,030	65,058	23,994	5,254	94,306
2003-2004	43,502	60,171	69,640	26,193	7,840	103,673
2004-2005	43,235	58,426	68,616	26,564	6,481	101,661
2005-2006	45,342	61,363	71,549	28,334	6,822	106,705

Other recommendations for dealing with underrepresentation of males in particular emerge from a survey of 498 men in the nursing profession conducted by the Bernard Hodes Group in April 2005. The average age of respondents was 44, and 59% stated that they began to consider nursing between the ages of 19 and 30. Although 20% entered a nursing program immediately after high school graduation, 44% had already been in another career prior to entering nursing, and 17% had been in the military previously. When questioned regarding the greatest challenges they had experienced since entering nursing, respondents mentioned stereotypes associated with men in nursing, followed by a lack of male role models and male mentors in nursing. Respondents stated that the unique aspects of the profession that drew them into a career in nursing were the stability of the profession with career growth**,** few layoffs or downsizing, multiple career paths, and the ability to practice in a variety of geographic areas, as well as salary. They also specifically mentioned the fact that school guidance counselors do not usually present nursing as a viable career option for men. This shows that successful men in nursing need to be talking with high school students and guidance counselors in an effort to make

nursing into an attractive career option for males graduating from high school (Hilton, 2005).

The men polled in the salary felt overall that the media poorly depicts men in nursing. They particularly pointed out a dislike of the term “male nurse”. This shows the need for nurses of both genders to become visible in their communities in order to dispel the stereotypes associated with nursing and demonstrate its viability as a career choice, particularly for men (Hilton, 2005).

Finally, respondents specifically noted the feminization of nursing in nursing programs, curricula, and even in traditions such as lamp-lighting ceremonies and receiving flowers during Nurses’ Week. This means that nursing programs must make a concerted effort to break with time-honored traditions in order increase their level of diversity and draw an increased number of males into their programs (Hilton, 2005).

Efforts to promote a positive depiction of men in nursing have arisen from Oregon’s Center for Nursing. Using the slogan “Are you man enough to be a nurse?”, the Center developed a recruitment campaign targeting both males and minorities. Along with producing posters featuring the slogan and licensing their use in Colorado, Pennsylvania, and Kentucky, the Center for Nursing is also distributing the posters to guidance counselors in junior high schools, high schools, and colleges (Moody, 2004). In response to such a campaign, the University of Pittsburgh School of Nursing is also targeting high school guidance counselors by developing a brochure which shows the many career options available in the nursing profession based on educational preparation (Williams, 2006).

One college that actively used the poster to successfully recruit male students is Arizona State University. Its College of Nursing and Healthcare Innovation currently has a male enrollment of almost 11 percent, a significant achievement when considered in light of the fact that less than 10 percent of the nation’s nursing students are men and less than 6 percent of practicing nurses are men. The Oregon Center for Nursing poster has been used as part of a campaign at Arizona State University to actively market the nursing major to men (Scott, 2006).

Recommendations for increasing the representation of minorities in nursing may also be derived from a Bernard Hodes Group survey. Conducted in 2003, this survey involved hospitals as respondents and centered around the emphasis placed on diversity in the healthcare environment. Only half of the respondents reported that their facility or system had a diversity plan, with only 25% reporting a plan actually in place, ready for implementation. Less than one-third of respondents stated that they measured the organizational impact of the diversity plans being implemented. In almost 90% of cases, the Human Resources department was left solely responsible for diversity management. Ultimately, such statistics point to the

need for healthcare organizations to scrutinize their internal demographics closely in order to determine if staff members are representative of the population being served. When it becomes clear in a facility that clientele are not receiving the maximum level of service because staff are not familiar with the language spoken or with cultural mores, a diversity council should be developed to address the problem as well as to determine how to retain the minority staff already in place (Hilton, 2006).

Ultimately, as the nursing shortage continues to tighten its grip on American healthcare, it will become imperative for nursing to find a way to induce males and ethnic minorities into taking their rightful place in the healthcare industry as practitioners. As their numbers are added to the nursing workforce, they will assist in creating a culturally competent and ethnically diverse group of nurses which is best able to care for an America which is no longer predominantly Caucasian.

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